North Dakota's
Enterprise Project Management Office

Large Project Oversight Guidance Document

Date of publication: February 27, 2009

Version: 2

Link: www.nd.gov/epm/oversight

Table of Contents

Overview

This guidance document contains excerpts from the LPO Guidebook utilized by Large Project Oversight Analysts (LPOAs) within the Enterprise Project Management Office (EPMO) of the State Information Technology Department's (ITD) Policy and Planning Division to fulfill the large project oversight duties as defined by North Dakota Century Code (NDCC). The purpose of this document is to communicate the expectations and responsibilities of entities involved in a large project.

To assist in the process of gathering the required information, defined by NDCC, the EPM Advisory Group revised and proposed ITD Standard STD009-05. The State Information Technology Advisory Committee (SITAC) has reviewed and approved this standard.

Appendix A contains STD009-05, which ensures accountability for the resources allocated to large information technology projects as directed by the legislative mandates noted above, and ensures that a consistent approach will be used to manage large IT projects.

Appendix B is intended to explain where LPO processes are inserted into a typical project lifecycle as well as describe, at a high level, how LPO typically recommends managing projects that involve a Request for Proposal (RFP) process. The following figure displays a high-level timeline of events involved in a typical project lifecycle. It also displays where LPO process are inserted into that lifecycle.

Appendix C contains a diagram of all the processes involved in the management of large projects for the state of North Dakota.

Appendix D describes, in detail, the requirements and best practices for each section of the business case.

Appendix E describes, in detail, the requirements and best practices for each section of the project charter.

Appendix F describes, in detail, the requirements and best practices for each section of the project plan.

Appendix G describes, in detail, the requirements and best practices for each section of the post implementation review.

Appendix H contains a description for the acronyms used throughout this guidance document.

Roles and Responsibilities

The following is a high-level description of the responsibilities for the roles involved in the LPO process. The detailed descriptions of these roles, as they relate to each phase of the LPO process, can be found within the chapters of this guidebook.

North Dakota Legislative IT Committee (LITC)

NDCC 54-35-15.2.10 authorizes the Information Technology Committee to "…receive and review information, including a project startup report summarizing the project description, project objectives, business need or problem, cost-benefit analysis, and project risks and a project closeout report summarizing the project objectives achieved, project budget and schedule variances, and lessons learned, from the information technology department and the affected agency regarding any major information technology project of an executive branch agency…" It also states that the committee shall "Perform periodic reviews to ensure that a major information technology project is on its projected schedule and within its cost projections."

NDCC 54-35-15.3 indicates "If the Committee determines that the project or plan is at risk of failing to achieve its intended results, the committee may recommend to the office of management and budget the suspension of the expenditure of moneys appropriated for a project or plan."

Chief Information Technology Officer for the State of North Dakota (CIO)

NDCC 54-59-05.7 requires the Information Technology Department (ITD) to "…request and review information, including project startup information summarizing the project description, project objectives, business need or problem, cost-benefit analysis, and project risks and a project closeout information summarizing the project objectives achieved, project budget and schedule variances, and lessons learned, regarding any major information technology project of an executive branch agency, the state board of higher education, or any institution under the control of the state board of higher education as provided in section 54-35-15.2. The department shall present the information to the information technology committee on request of the committee."

NDCC 54-59-05.8 allows the Information Technology Department to "…request and review information regarding any information technology project of an executive branch agency with a total cost of between one hundred thousand and two hundred fifty thousand dollars as determined necessary by the department. The department shall present the information to the information technology committee on request of the committee."

North Dakota Statewide Information Technology Advisory Committee (SITAC)

NDCC 54-59-23 requires the identified entities to report to the State Information Technology Advisory Committee (SITAC) according to the guidelines developed by ITD (STD009-05). In addition, the entities must also "notify the state information technology advisory committee if:

(1) At a project milestone, the amount expended on project costs exceeds the planned budget for that milestone by twenty percent or more; or
(2) At a project milestone, the project schedule extends beyond the planned schedule to attain that milestone by twenty percent or more."

The intent of this group is to share lessons learned and collaborate on ideas for project recovery. It is not the intent that this group approves or disapproves recovery strategies. They are an advisory body.

Enterprise Project Management Office (EPMO)

The EPMO provides two distinct services. The EPMO works with project managers from state entities to coordinate "best practices" related to information technology project management. This includes the development of the ND Project Management Guidebook, training opportunities, mentoring, maintenance of the EPM website and newsletter. The EPMO works directly with the Enterprise Project Management Advisory Group in a joint effort to meet the needs of project managers across the enterprise. In addition, the EPMO supplies the analysts for large project oversight. The primary duty in this area is to provide oversight and reporting of all projects as designated by NDCC 54-35-15.2, NDCC 54-59-05.7 & .8 and NDCC 54-59-23 and in accordance with STD009-05.

Enterprise Project Management Advisory Group (EPM Advisory Group)

A group of agency project managers who proactively identify project management issues, and collect/develop project management best practices such as tools and templates.

Large Project Oversight Analyst (LPOA)

The LPOA is responsible for tracking all large projects to ensure compliance with established NDCC and related standards. The LPOAs are staffed in the Policy and Planning Division of ITD.

Project Sponsor

The Project Sponsor has a demonstrable interest in the outcome of the project and is responsible for securing spending authority and resources for the project. Ideally, the Project Sponsor should have full authority to make

all decisions necessary to assure completion of the project, including decisions to increase the project scope and budget.

The Project Sponsor initiates the project proposal process, champions the project in the Performing Organization, and is the ultimate decision maker for the project. The Project Sponsor provides support for the Project Manager, approves major deliverables, and signs off on approvals to proceed to each succeeding project phase. The Project Sponsor may elect to delegate any of the above responsibilities to other personnel either on or outside the Project Team. The Project Sponsor is commonly the chairperson of the Executive Steering Committee, which is a larger management team providing guidance and support to the Project Manager.

The Project Sponsor acts as the primary interface between the assigned LPOA and the agency conducting the large project. He/she is responsible for all document transactions between the LPOA and agency. The Project Sponsor may choose to delegate LPOA interaction authority to another project team member but must complete the communication assignment matrix form for LPO records. The delegated team member must be an employee of the project's sponsoring agency and may not be the assigned project manager due to an implied conflict of interest.

Executive Steering Committee (ESC)

The Executive Steering Committee is a larger management team providing guidance and support to the Sponsor and Project Manager. STD009-05 supplies the following requirement for large projects as it relates to the ESC:

"An Executive Steering Committee shall be established to provide management support to the project. The committee members shall include at minimum, the project manager, project sponsor, and key stakeholders. The Policy and Planning Oversight Analyst assigned to the project shall be invited to attend as an ex officio member. The committee shall be responsible for reviewing the status at project milestones, authorizing significant changes to the project plan, and facilitating decision-making. The committee shall meet quarterly, or on a more frequent basis as defined in the project plan."

Generally speaking, the ESC acts as an advisory group to the Project Sponsor as it relates to managing the project's cost, scope, schedule and quality. Project issues may be brought to the ESC via the Project Manager. The ESC has the ability to compromise regarding project issues that can't be resolved by the team.

Performing Organization Management

The Performing Organization Management includes all members of the organization's management team that may exert influence on project team members or be affected by and involved in the development and implementation of the product of the project. For example, the committees that are formed to evaluate and select proposed projects for the Performing Organization are typically comprised of members of the Performing Organization Management.

It is important for the LPOA assigned to a large project to have a general understanding of how the performing organization typically understands the process for and manages large projects. It's also important to have a general understanding of the internal and external influencers of the performing organization that may impact the large project.

Project Manager (PM)

The Project Manager is the person who is responsible for ensuring that the Project Team completes the project. He/she is also the primary connection between the project team and the Project Sponsor/Performing Organization. The Project Manager develops the project plan with the team and manages the team's performance of project tasks. It is also the responsibility of the Project Manager to secure acceptance and approval of deliverables from the Project Sponsor and Stakeholders.

The Project Sponsor is ultimately responsible for the interaction between the performing organization/project and the LPOA; however, the LPOA may work with the assigned project manager from an advisory perspective in the development of key documentation and analysis.

LPO Process

The following is a description of the large project oversight processes, as required by STD009-05. The details are broken down by section of the standard.

Section 1 – Records Retention

It is not the intent of the LPOA to audit for compliance with the project repository/retention section of the standard. However, the standard provides the authority for either the LPOA or State Auditor's office to review for compliance. In the event of audit or legal action, the onus for retention of original project documents is on the performing organization.

Section 2 - Business Case

The primary recipients of the business case are the legislative body and agency who owns the project. The agency uses the business case to gain internal agency approval for moving forward with a project. The agencies then use it to get funding appropriation from the legislature. The business case is an argument for why general, special, or federal funds should be used on the project. The value of the business case depreciates if it is not done during the budgeting process.

The reason the business case is part of the LPO process is because it is a foundation document for building the project charter. STD009-05 will explain the minimum required PM activities related to the creation of the business case and Appendix D defines the required level of quality as well as some best practices for the content of the business case.

Prior to official submission, LPOAs are available to the Project Sponsor, Project Manager, or any other Project Team Member for advice regarding the content of the business case.

Once the Project Sponsor officially submits the business case to the LPOA, the LPOA has a ten day period for official review and response. If the LPOA has concerns regarding the quality and/or its compliance with STD009-05, the LPOA will communicate those concerns directly to the Project Sponsor unless the Project Sponsor has identified a designee in writing.

Section 3 – Trained Project Manager

Due to the maturity of the project management processes and the increasingly complex nature of large IT projects within the state of North Dakota, it has become necessary to require a minimum level of training for project managers. This requirement does not pertain to project sponsors or other project participants unless they are also fulfilling the role of project manager. Although not required, experience has shown that the project tends to perform better when project sponsors and other team members understand the project processes and have some form of high-level project management training.

Section 4 - Project Charter

The project charter builds on and adds additional details to the content developed in the business case. The global business case concepts become more granular.

At this point in the initiating process, the legislature has appropriated the funding for the project.

Sign-off of the project charter gives approval, at the agency level, to the project manager to move forward to plan the project. The project charter is a contract between the project manager and project sponsor; therefore both entities should be involved in the authoring process

The project charter shouldn't change or be updated after signature. It is a static document. Any changes to it would be performed through the change management control process and documented in the project plan.

A large project may be broken into multiple projects (i.e., multiple charters and project plans are involved in meeting the business requirements identified in a single business case). The EPMO usually recommends a single charter for agency internal or ITD built projects and multiple charters any time an RFP is required. There are other scenarios where a multiple charter process is used. These cases may be when studies are conducted, prototypes developed, a plan-to-plan is used, or there are multiple implementations planned.

Single charter projects will follow the steps documented in Appendix B. If the agency expects the planning phase to exceed six months, which includes all activities of charter 1 and the planning activities of charter 2, a project plan is required in order to identify communications, schedule, risks, etc., scaled to the appropriate level for this phase. The oversight process flow for multiple charter projects goes as follows:

- Business Case – Including output from RFI or other estimating processes.
- Charter 1 (which could be for an RFP, studies, prototype, a plan-to-plan, or there are multiple implementations planned)
    - From an oversight standpoint, we would require quarterly planning status reports throughout this phase and up to the end of planning phase of the implementation charter.
    - The exception to this looser monitoring of the project for this timeline is when the planning phase has a budget greater than $250,000 because then this effort becomes a large project by itself.
    - The agency would not present the startup report to LITC until the completion of the planning phase of the implementation charter.
    - LPO would not track variance during this phase but would have the option to notify the LITC of any concerns or risks to the project via the quarterly summary report cover letter.
- Charter 2 – Implementation

STD009-05 will explain the minimum required PM activities related to the creation of the project charter and Appendix E defines the required level of quality as well as some best practices for the content of the project charter.

Prior to official submission, LPOAs are available to the Project Sponsor, Project Manager, or any other Project Team Member for advice regarding the content of the project charter.

Once the Project Sponsor officially submits the project charter to the LPOA, the LPOA has a ten day period for official review and response. If the LPOA has concerns regarding the quality and/or its compliance with STD009-05, the LPOA will communicate those concerns directly to the Project Sponsor unless the Project Sponsor has identified a designee in writing.

Section 5 - Executive Steering Committee (ESC)

Once you have completed the project charter, the project has officially begun and it is the planning and execution of the project that benefits from the formation of the ESC. If the ESC is created timely, there is value attained from the high-level communications of the committee members, decision-making, and general involvement of key stakeholders.

In practice, the project sponsor acts as the chairman of the ESC. The establishment of the ESC is not intended to replace the responsibilities of the project sponsor but rather act as an advisory body and to assist in resolving escalated issues.

While the minimum requirement is to establish and ESC after the project charter is signed, some projects have found value in creating the ESC as early as during the development of the business case.

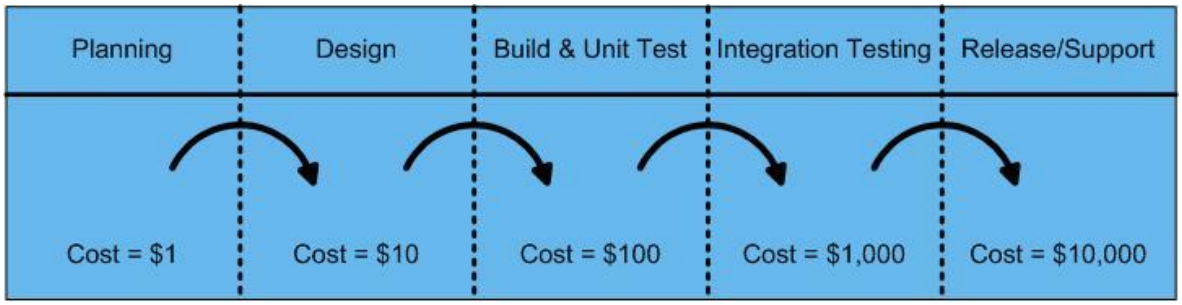
Section 6 - Project Plan

The project plan draws much of the baseline information from and builds upon information contained in the project charter. The project planning team should plan in accordance with the parameters (e.g., scope) identified in the project charter.

The project plan is a living document but must include version control. It requires Project Sponsor approval to proceed to the execution phase. The project plan is more than a Gantt chart as it contains all of the management plans necessary to successfully manage the execution of the project.

If the agency expects the planning effort to exceed six months, it is required to place controls around the planning effort (plan to plan and then control the execution of the planning effort).

Money invested in the planning effort is money well spent. The diagram below shows how the costs increase exponentially the later an issue is discovered during a project.



STD009-05 will explain the minimum required PM activities related to the creation of the project plan and Appendix F defines the required level of quality as well as some best practices for the content of the project plan.

Prior to official submission, LPOAs are available to the Project Sponsor, Project Manager, or any other Project Team Member for advice regarding the content of the project plan.

Once the Project Sponsor officially submits the project plan to the LPOA, the LPOA has a ten day period for official review and response. If the LPOA has concerns regarding the quality and/or its compliance with STD009-05, the LPOA will communicate those concerns directly to the Project Sponsor unless the Project Sponsor has identified a designee in writing.

Section 7 - Project Startup Report

The project start-up report is created after the project plan has been approved. This is important because it gives the agency opportunity to understand the full budget and schedule requirements prior to going on record as a baseline for variance measurement. The actual presentation of the start-up report to the LITC is scheduled, typically, after execution begins. The agency then presents the report to the LITC.

A project start-up report template is available at the LPO website and its use is required. In completing the template, new content generation is not required. The agency should copy all content in the report from the business case, project charter, and project plan.

The Project Sponsor should submit the start-up report to the LPOA in advance of the presentation in order to allow any concerns or recommendations to be addressed. The Project Sponsor is responsible to formally submit an electronic copy of the start-up report to the Legislative Council and supply paper copies at the time of the presentation.

Section 8 - Quarterly Status Reports

From the LPOA perspective, the quarterly report process involves collecting information related to individual large projects, performing analysis on the information, and conveying the information to the LITC.

From the Project Sponsor perspective, the quarterly report process provides a consistent milestone to measure project progress.

Project reports are required quarterly for each large project including those in the planning phase. Status report templates are available for either the Planning Phase or the Execution Phase on the EPM website.

Subsequent to review, the LPOA may contact the Project Manager for further follow up/clarification and, if necessary, escalate concerns to Project Sponsor for resolution.

If the project is over or under variance to schedule and/or cost by 20% or more for the first time, the LPOA will notify the lead LPOA to schedule a SITAC presentation. The assigned LPOA should provide advisory services to the Project Sponsor with regards to putting together the SITAC presentation. Any subsequent variance presentations are directed to the LITC.

The LPO quarters are defined to be calendar quarters:

- January 1 through March 31
- April 1 through June 30
- July 1 through September 30
- October 1 through December 31

Section 9 – Large Project Summary Report

Large Project Oversight presents this report to the LITC on a quarterly basis. The report consists of a cover letter and spreadsheet. The LPOAs review and summarize the individual Quarterly Status Reports to develop the spreadsheet. The cover letter contains information about projects in the planning phase, projects that entered execution or closed in the last quarter, and details regarding any projects that require more explanation than allowed in the spreadsheet. The cover letter may contain information received after the quarterly deadline but pertinent to the current status of the project. Prior to final submission of the report, the LPOA will send the Project Sponsor the summarized spreadsheet information intending to provide an opportunity to comment or resolve concerns. The lead LPOA then sends the report and cover letter to the Legislative Council for submission to the LITC.

Agency	Project Name	Project Description	Project Duration	Project Status	Project budget	Actual to date	Est. cost at completion
XYZ	Test	This project …	1/09 – 6/10	The project is on-time and on budget	$500,000	$179,282	$500,000

The lead LPOA will provide a verbal report to the LITC at a regularly scheduled meeting. The Project Sponsor is not required to attend unless requested by the LITC.

Section 10 - Post Implementation Review (PIR)

The purpose of the PIR is to summarize successes, failures, lessons learned, best practices, performance patterns and trends, and communicate the results to project stakeholders. The data is solicited from the project team, customers, and other stakeholders. The report is intended to represent the business's interests in achieving the project's strategic goals and objectives and the project management interests related to process improvement. Information collected is an input to the project closeout report.

STD009-05 will explain the minimum required PM activities related to the creation of the PIR and Appendix G defines the required level of quality as well as some best practices for the content of the PIR.

Prior to official submission, LPOAs are available to the Project Sponsor, Project Manager, or any other Project Team Member for advice regarding the content of the PIR.

Once the Project Sponsor officially submits the PIR to the LPOA, the LPOA has a ten day period for official review and response. If the LPOA has concerns regarding the quality and/or its compliance with STD009-05, the LPOA will communicate those concerns directly to the Project Sponsor unless the Project Sponsor has identified a designee in writing.

Section 11 - Project Closeout Report

The agency creates the project closeout report after the post implementation review is completed. The presentation of the closeout report to the LITC is scheduled, typically, after post implementation review is completed. The agency then presents the report to the LITC.

A project closeout report template is available at the LPO website and its use is required. In filling in the content of the template, new content generation is not required. The agency should copy content from the PIR.

The Project Sponsor should submit the closeout report to the LPOA in advance of the presentation in order to allow any concerns or recommendations to be addressed. The Project Sponsor is responsible to formally submit an electronic copy of the closeout report to the Legislative Council and supply paper copies at the time of the presentation.

Other Interactions

Oversight Report

This section describes the formal processes used to document the LPOA's analysis and recommendations for future action when the project is experiencing difficulties. This process is not intended to capture and report general budget/schedule variance issues. However, variance reports may be an input or catalyst for this process. There are two types of oversight report.

The LPOA will utilize an oversight memo when there is agreement between the Project Sponsor and the LPOA. Reporting of the concern is accurate, but additional documentation and/or recommendations are warranted. The LPOA should submit the draft memo to the Project Sponsor for comment. This might be an iterative process. The LPOA issues the final copy of the memo only to the CIO, agency executive, and Project Sponsor. The LPOA will also place a copy in the LPO project binder and in the LPO electronic project repository. If the agency does not take corrective action on the project to address the concern after the memo is released, the memo could then escalate into the creation of a LPO oversight report.

The LPOA will utilize an oversight report when there is disagreement between the Project Sponsor and the LPOA, primarily regarding the information submitted in the quarterly reporting process but not restricted to that process. The LPOA utilizes the Oversight Report to document the LPOA's analysis of the project's health and provide recommendations for correction. Then the LPOA presents the report to key stakeholders for input (e.g. ESC, sub-set of ESC, or expanded ESC). This might be an iterative process. Agreement is desired but not necessary. It is possible that, through these discussions, the LPOA downgrades the report to a memo or even just notes made in the file.

If it becomes necessary to issue the report, the LPOA will distribute the report to the CIO, agency executive, LITC, State Auditor's Office, and Project Sponsor and place a copy of the report in the LPO electronic repository and project binder.

Upon receipt of the report, the LITC may decide to:

- Do nothing
- Request a project audit from the State Auditor's Office

- Provide advice and recommendations for corrective action
- Recommend OMB remove funding for the project in accordance with NDCC 54-35-15.3

Upon receipt of the report, the State Auditor's Office may decide to:

- Do nothing
- Initiate a project audit

Appendix A: ITD Standard STD009-05

NORTH DAKOTA ENTERPRISE PROJECT MANAGEMENT

STANDARD: STD009-05

EFFECTIVE: January 1, 2005
REVISION #: 3.0
REVISED: December 15, 2008

Project Management of Large Information Technology Projects

Purpose

This standard will ensure accountability for the resources allocated to large information technology (IT) projects as directed by the legislative mandates summarized below, and ensure that a consistent approach will be used to manage large IT projects.

The Information Technology Department is required to:

- Develop statewide IT policies, standards, and guidelines with OMB, based on information from state agencies and institutions excluding institutions under the control of the board of higher education. (NDCC 54-59-09)
- Prepare an information technology plan that contains a list of large projects started, ongoing, and completed during the biennium including planned/actual cost and schedule metrics and evaluation of *cost/benefit analysis* of completed projects (NDCC 54-59-11.1,2)
- Request and review project startup and closeout information (NDCC 54-59-05.7)
- Perform periodic reviews to ensure that large IT projects are within acceptable schedule and cost variances. (NDCC 54-59-23)

The State Information Technology Advisory Committee (SITAC) is required to:

- Perform reviews of IT projects that exceed planned budget or schedule *milestones* by a variance of 20% or greater. The SITAC will review the projects planned corrective measures (NDCC 54-59-23)
- Review agency notifications of IT projects that exceed planned budget or schedule by 20% or greater upon completion (NDCC 54-59-23)

The Legislative Information Technology Committee (IT Committee) is required to:

- Review the startup and closeout reports of any large IT project of the executive, legislative, or judicial branch and Higher Education (NDCC 54-35-15.2 subsection 10, 11, 14)
- Perform reviews of IT projects that exceed planned budget or schedule *milestones* by a variance of 20% or greater and fail to recover within 90 days of presenting the project's

planned corrective measures to the State Information Technology Advisory Committee (NDCC 54-59-23)

- If the committee determines that the project is at risk of failing to achieve its intended results, the committee may recommend to the Office of Management and Budget (OMB) the suspension of the expenditure of moneys appropriated for a project or plan. OMB may suspend the expenditure authority if in agreement with the recommendation of the IT Committee (NDCC 54-35-15.3)

The Legislative Council is provided assistance with the implementation of these mandates from the Information Technology Department Policy and Planning Division (ITD) and the State Auditor's Office.

Standard

All large information technology projects *shall comply with the following directives:*

1. A project repository must be maintained by the performing organization to manage and retain critical project documents. If the performing organization chooses to manage documents electronically, the following provisions must be followed.
   1.1. Documents must be stored on a secured environment owned by the state.
   1.2. Performing organizations may choose to allow vendors to manage documents on a privately owned project management/document management system if there is a contractual provision to provide the performing organization with a download of all relevant documentation in periodic increments not to exceed 30 days.
   1.3. Documentation to be retained in repository includes:
      1.3.1. All documents identified in this standard.
      1.3.2. Products of project management which may include meeting minutes, scope changes, deliverable/project acceptance, risk logs, issue logs, quality related documents, budgets, variance reports, recovery plans, schedules, project status reports, RFI/RFP, and Contracts (including all attachments/addendums), and relevant email communications.
   1.4. Upon completion, all documentation must be retained for a period of no less than 3 years.
      1.4.1. Agencies may choose to establish individual records retention policies that include the same or greater documentation requirements and a retention schedule of no less than 3 years.
2. A business case shall be developed to justify the business need for the project and to identify the *proposed solution*.
   2.1. The business case shall minimally include the *project description*, *business need/problem*, *proposed solution*, *consistency/fit with the organization's mission*, *cost/benefit analysis*, and *risks*. The business case should be developed and finalized during the origination process. Additional information and a template can be found in the ND Project Management Guidebook (see Guidance section).
   2.2. After approval by the project sponsor, and prior to any Initiation, Planning, or Execution activities (e.g. RFP, procurement, development, etc.), a business case shall be submitted to the ITD Policy and Planning Oversight Analyst assigned to the project
   2.3. The ITD Policy and Planning Oversight Analyst assigned to the project shall review the business case for general compliance with directive 2.1 and provide comments to the agency within ten business days of receipt.

3. A trained project manager shall be assigned to the project to develop the project plan, manage its execution (including scope, schedule, cost, and quality control), and manage project human resources, communications, risks, and procurements.
4. A project charter shall be developed and executed to initiate the project and to secure commitment for the resources (human, financial, equipment, etc.) necessary for the project.
   4.1. The project charter shall minimally include the following information: project background, *scope*, *objective(s)*, *required resources*, *constraints*, *assumptions*, and project *authority*. The project charter shall be completed prior to the *planning process*. Additional information and a template can be found in the ND Project Management Guidebook (see Guidance section).
   4.2. After approval by the project sponsor, and prior to any Planning or Execution activities a copy of the project charter shall be submitted to the ITD Policy and Planning Oversight Analyst assigned to the project
      4.2.1. The project *sponsor* shall formally approve the project charter in writing.
      4.2.2. A copy (electronic) of the signed project charter shall be submitted to ITD prior to signing of vendor contracts or any project expenditures (Exception: Origination/Initiation activities).
      4.2.3. A signed copy of the project charter shall be retained by the agency.
   4.3. The ITD Policy and Planning Oversight Analyst assigned to the projectshall review the charter for general compliance with directive 4.1 and provide comments to the agency within ten business days of receipt.
5. An Executive Steering Committee shall be established to provide management support to the project.
   5.1. The committee members shall include at minimum, the project manager, project sponsor, executive level business owners, and executive level vendor representatives . The Policy and Planning Oversight Analyst assigned to the project shall be invited to attend as an ex officio member.
   5.2. The committee shall be responsible for reviewing the status at project *milestones*, authorizing significant changes to the project plan, and facilitating decision-making.
   5.3. The committee shall meet quarterly, or on a more frequent basis as defined in the project plan.
6. A project plan shall be developed as the primary planning document for the project.
   6.1. The project plan shall follow the guidelines of the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK), and include all management sections as defined in the ND Project Management Guidebook and Project Plan Template (see Guidance section).
   6.2. The project plan shall identify specific *milestones* throughout the project and their associated cost, schedule, and any associated phase and *deliverables* (see Guidance section).
   6.3. After approval by the project sponsor, a copy of the project plan shall be submitted to the ITD Policy and Planning Oversight Analyst assigned to the project.
   6.4. The ITD Policy and Planning Oversight Analyst assigned to the project shall review the project plan for general compliance with directive 6.1 and provide comments to the agency within ten business days of receipt.
   6.5. Upon request, a current copy of the project plan shall be submitted to Large Project Oversight in conjunction with the quarterly project status report.
7. Project Startup Report

7.1. The intent of this document is to convey information gleaned from the Business Case, Charter, and Project Plan to the Legislative IT Committee at the time when the project has completed the *planning process* and is entering the execution phase (the information contained in this document should not be new. It should be taken from the existing referenced documents).

7.2. The reported budget and schedule will be used to calculate variance during execution of the project.

8. The project status report shall be submitted to ITD on a quarterly basis, or when a milestone exceeds twenty percent of planned cost or schedule. The report should include an executive summary, budget and schedule (including variance calculations), issues, risks, project accomplishments and upcoming activities.

8.1. Throughout the life of the project, if changes occur which would impact the project *objectives* as stated in the original business case/charter, or changes to cost, schedule, scope or quality as defined in the project plan, those impacts shall be included in the project status report.

8.2. Identified risks and/or issues should be added to the quarterly report as they occur and removed from the report upon resolution.

8.3. The report shall include the attainment of any project *milestones*, and summary information to include (NDCC 54-59-23);

8.3.1. Any variance wherein the project costs exceed the planned costs for that milestone by a variance of twenty percent or more.

8.3.2. Any variance wherein the project schedule extends beyond the planned schedule for that milestone by a variance of twenty percent or more.

8.3.3. Specify corrective measures being undertaken to address any cost or time completion issue.

8.3.4. Both positive and negative cost and schedule variances for *milestones* accumulate for the duration of the project (See Guidance).

8.3.5. Revised budget or schedule baselines will be approved only upon approved scope changes (add or remove) that could not have reasonably been foreseen during the planning phase.

9. ITD shall create a Large Project Summary Report, which summarizes the performance of large projects, and submit it to the Legislative Council once per quarter.

10. A Post Implementation Review (PIR) shall be performed by the agency at the conclusion of the project in order to assess the success of the project and to capture historical information.

10.1. The PIR shall minimally include a review and summary of lessons learned, success stories, product effectiveness, CSSQ management, risk management, communications management, acceptance management, organizational change management, issues management, project implementation and transition, performance of the performing organization, and key project metrics (i.e. cost, schedule, scope, quality). Additional information and templates can be found in the Project Closeout Chapter of the ND Project Management Guidebook (see Guidance section).

10.2. After approval by the project sponsor, a copy of the PIR shall be submitted to the Policy and Planning Oversight Analyst assigned to the project.

10.3. The ITD Policy and Planning Oversight Analyst assigned to the project shall review the PIR for general compliance with directive 10.1 and provide comments to the agency within ten business days of receipt.

11. Project Closeout Report

11.1. The intent of this document is to convey information gleaned from the Post Implementation Report to the Legislative IT Committee at the time when the project has completed the closeout phase (the information contained in this document should not be new. It should be taken from the existing referenced documents).

11.2. The reported budget and schedule will be used to calculate variance.

Policy

Projects are by definition a temporary endeavor undertaken to create a unique product, service, or result. Due to the nature and scale of the projects defined as large IT projects, it is critical that project management *practices be employed and that processes are in place, increasing the probability of delivering quality products, on time and within budget.*

Applicability

According to NDCC 54-35-15.2, this standard applies to all executive, legislative, and judicial branch agencies. The State Board of Higher Education will maintain a separate standard in accordance with NDCC 15-10-44 (1,2,4)

Definitions

1. *Acceptance Management – (Post Implementation Report) – This section of the report is intended to capture how the acceptance processes were managed during the project.*
2. *Assumptions – (Charter) A list of factors, for planning purposes, which are known to be true, real, or certain without proof or demonstration. Assumptions generally involve a degree of risk. (PMI – CSG 3rd Ed)*
3. *Authority – (Charter) The right to apply project resources, expend funds, make decisions, or give approvals. (PMI – CSG 3rd Ed)*
4. *Business Need/Problem – (Business Case) Those issues identified as driving the proposed project.*
5. *CSSQ Management – (Post Implementation Report) – This section of the report is intended to capture how the cost, schedule, scope, and quality processes were managed during the project.*
6. *Communications Management Plan – (Project Plan) The document that describes: the communications needs and expectations for the project; how and in what format in formation will be communicated; when and where each communication will be made; and who is responsible for providing each type of communication. (PMI – CSG 3rd Ed)*
7. *Consistency/Fit within the Organization's Mission – (Business Case) How the proposed project will fit within the agency's mission and/or strategic plan.*
8. *Constraints – (Charter) The state, quality, or sense of being restricted to a given course of action or inaction. An applicable restriction or limitation, either internal or external to the project, that will affect the performance of the project or a process. (PMI – CSG 3rd Ed)*
9. *Cost/Benefit Analysis – (Business Case) A dynamic review of the estimated cost, anticipated benefits, and a quantitative analysis justifying the costs for the anticipated benefits.*
10. *Cost Management Plan– (Project Plan) The document that sets out the format and establishes the activities and criteria for planning, structuring, and controlling the project costs. (PMI – CSG 3rd Ed)*
11. *Deliverable - Any unique and verifiable product, result, or capability to perform a service that must be produced to complete a process, phase, or project. Often used*

more narrowly in reference to an external deliverable, which is a deliverable that is subject to approval by the project sponsor or customer. (PMI – CSG 3rd Ed)

12. *Human Resource/Staffing Management Plan – (Project Plan) The process of identifying and documenting project roles, responsibilities and reporting relationships, as well as creating the staffing management plan (staffing management describes when and how human resource requirements will be met). (PMI – CSG 3rd Ed)*
13. *Integrated Change Control Plan – (Project Plan) The process of reviewing all change requests, approving changes and controlling changes to deliverables and organizational process assets. (PMI – CSG 3rd Ed)*
14. *Issues Management – (Post Implementation Report) - This section of the report is intended to capture how project issues were managed during the project.*
15. *Issues Management Plan – (Project Plan) - The document describing how issues management will be structured and performed on the project. The issues management plan is different from the issues log that contains the list of ongoing issues to be managed during the execution of the project.*
16. *Key Project Metrics (Cost, Schedule, Scope, Quality, Objectives) – (Post Implementation Report) – This section of the report is intended to capture specific data related to the original and final metrics of cost, schedule, scope, quality, and objectives as related to the project plan.*
17. *Milestone – A significant point or event in the project. (PMI – CSG 3rd Ed)*
18. *Objectives – (Charter) Something toward which work is to be directed, a strategic position to be attained, or a purpose to be achieved, a result to be obtained, a product to be produced, or a service to be performed. (PMI – CSG 3rd Ed)*
19. *Organizational Change Management Plan – (Project Plan) – includes processes and tools for managing the people side of the change at an organizational level. These tools include a structured approach that can be used to effectively transition groups or organizations through change.*
20. *Performance of the Performing Organization – (Post Implementation Report) – This section is intended to capture information related to the performance of the organization as it relates to the success of the project.*
21. *Planning Process – The planning process is considered complete when the sponsor, project manager, and project team agree that the work to be completed has been decomposed to a level wherein the scope can be delivered and the business objectives of the project met. Management plans should allow the execution of the work to be managed in a controlled manner. Execution related work may not begin until the planning process is complete.*
22. *Procurement Management Plan – (Project Plan) The document that describes how procurement processes from developing procurement documentation through contract closure will be managed. (PMI – CSG 3rd Ed)*

23. *Project Background – (Charter) - This section describes, in a manner that the typical Executive Steering Committee member will be able to understand, the history of the project to date. Inputs to this section include the business case project description section, business case solution section, description of any business case risk acceptance decisions, applicable historical information, and any pertinent activities that occurred since the business case was approved.*
24. *Project Description – (Business Case) - An initial review of the project objectives.*
25. *Product Effectiveness – (Post Implementation Report) – This section contains a general review of how the product is performing during post implementation. Success stories may be outputs of this portion of the review.*
26. *Project Implementation and Transition Plan – (Project Plan) - This section includes a description of the high level elements required to successfully transition the project.*
27. *Project Management – The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. (PMI – CSG 3rd Ed)*
28. *Project Management Plan – (Project Plan) – A formal, approved document that defines how the project is executed, monitored and controlled. It may be summary or detailed and may be composed of one or more subsidiary management plans or other planning documents. (PMI – CSG 3rd Ed)*
29. *Proposed Solution – (Business Case) The product of the project that would resolve the Business Need/Problem.*
30. *Quality Management Plan – (Project Plan) The quality management plan describes how the project management team will implement the performing organization's quality policy. (PMI – CSG 3rd Ed)*
31. *Required Resources – (Charter) Skilled human resources (specific disciplines either individually or in crews or teams), equipment, services, supplies, commodities, materials, budgets, or funds. (PMI – CSG 3rd Ed)*
32. *Risks – (Business Case) An uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives. (PMI – CSG 3rd Ed)*
33. *Risk Management – (Post Implementation Report) – This section of the report is intended to capture how project risks were managed during the project.*
34. *Risk Management Plan – (Project Plan) The document describing how risk management will be structured and performed on the project. The risk management plan is different from the risk register that contains the list of project risks, the results of risk analysis, and the risk responses. (PMI – CSG 3rd Ed)*
35. *Scope – (Charter) The sum of the products, services, and results to be provided as a project. (PMI – CSG 3rd Ed)*
36. *Sponsor – The person or group that provides the financial resources, in cash or in kind, for the project. (PMI – CSG 3rd Ed)*
37. *Schedule Management Plan – (Project Plan) The document that establishes criteria and the activities for developing and controlling the project schedule. (PMI – CSG 3rd Ed)*
38. *Scope Management Plan – (Project Plan) The document describing how scope will be managed and controlled on the project.*
39. *Trained Project Manager – All project managers must have a minimum of 24 contact hours of project management specific training during the six years prior. Obtaining the CompTIA Project + or CAPM certification will substitute for the minimum training requirement.*

Guidance

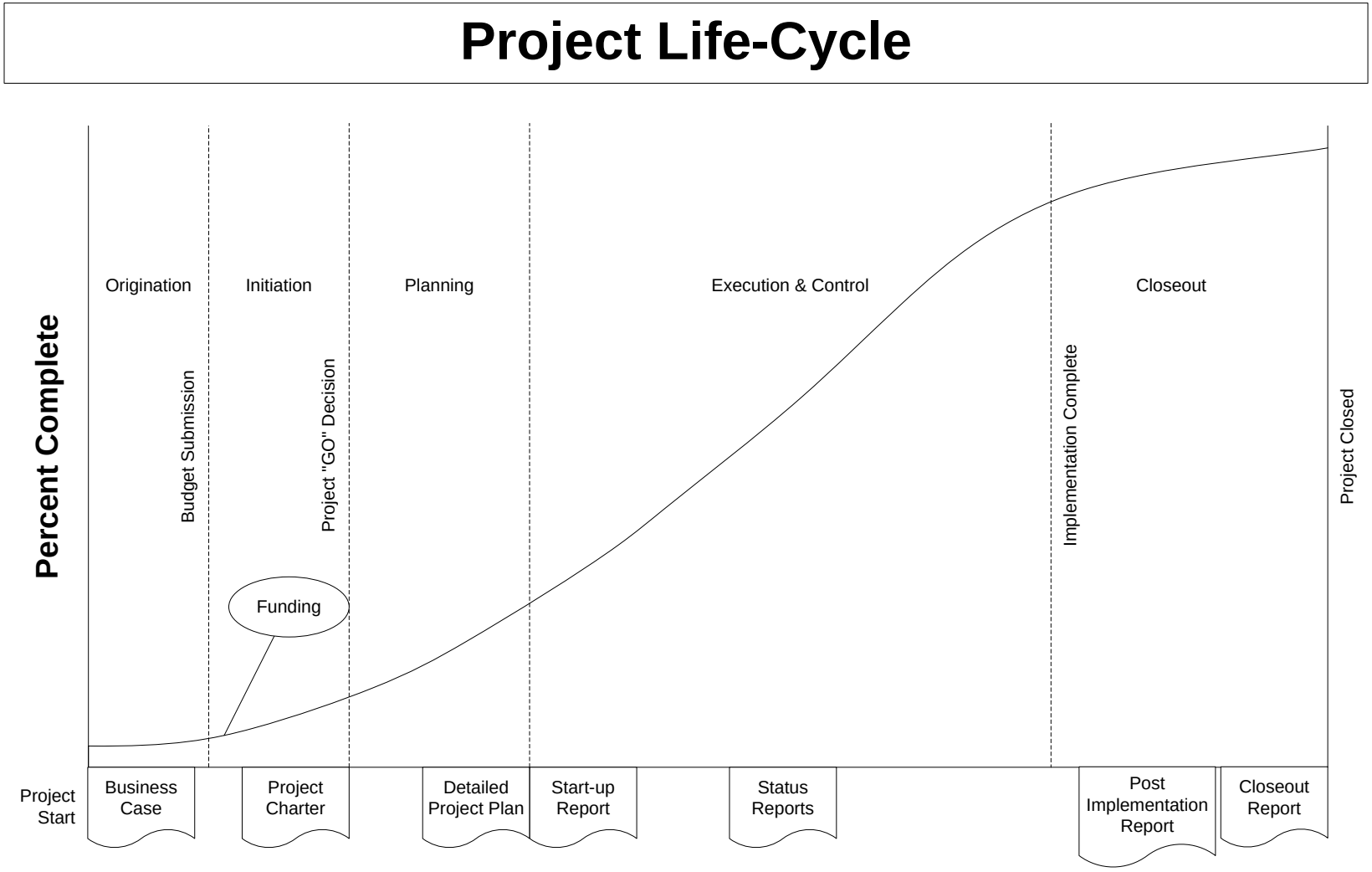
1. Enterprise Project Management Website http://www.state.nd.us/epm
2. ND Project Management Guidebook http://www.state.nd.us/epm/resources/doc/guide.pdf
3. The Project Management Body of Knowledge (PMBOK), Project Management Institute (PMI) http://www.pmi.org.

Non-Compliance

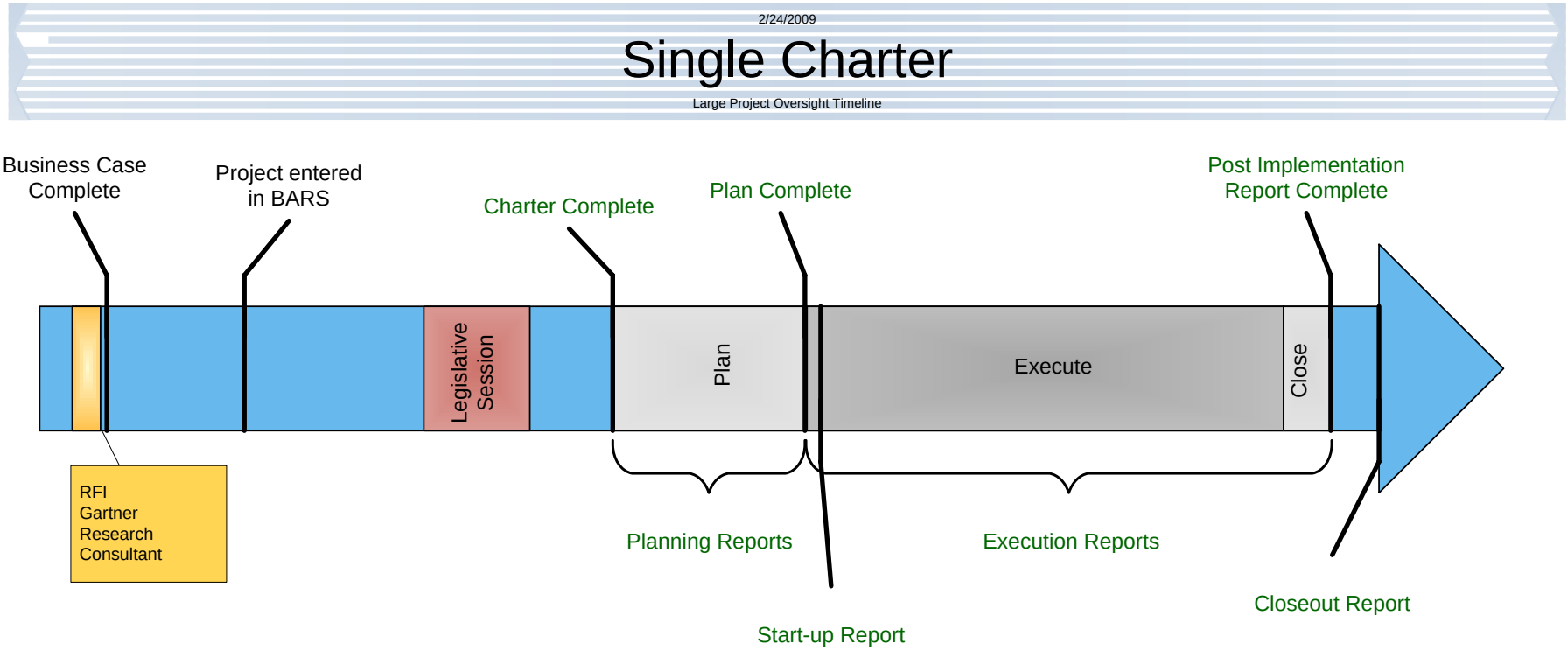
Non-compliance of this standard shall be reported to the State Auditor's Office and the Legislative Council. NDCC 54-35-15 and NDCC 54-10-28 identify the enforcement capabilities for each group respectively. Non-compliance may result in non-approval of any IT expenditures associated with the project.

This policy supersedes ITD Standard STD009-05 v2.0.

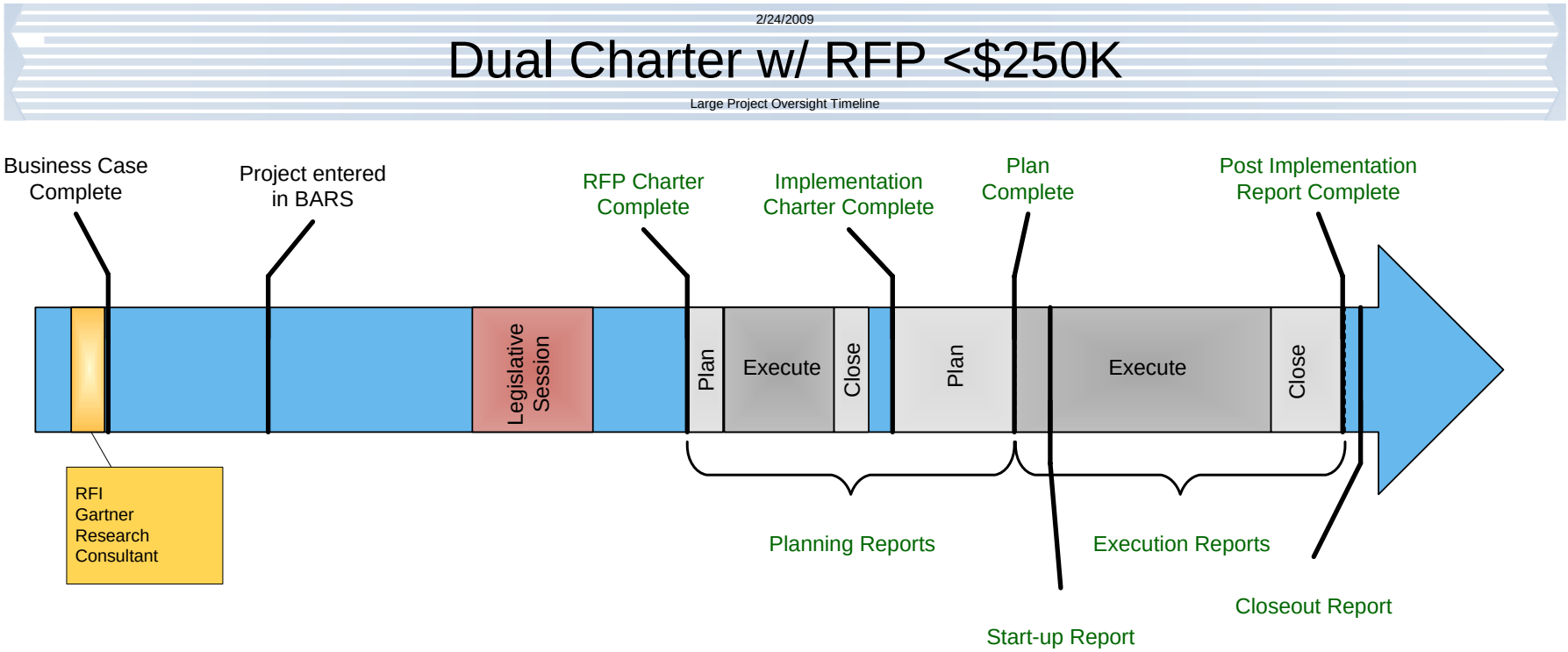
Appendix B: High Level Timeline



This figure describes a typical project LPO lifecycle when an RFP is not a part of the project requirements and a single project charter is used.

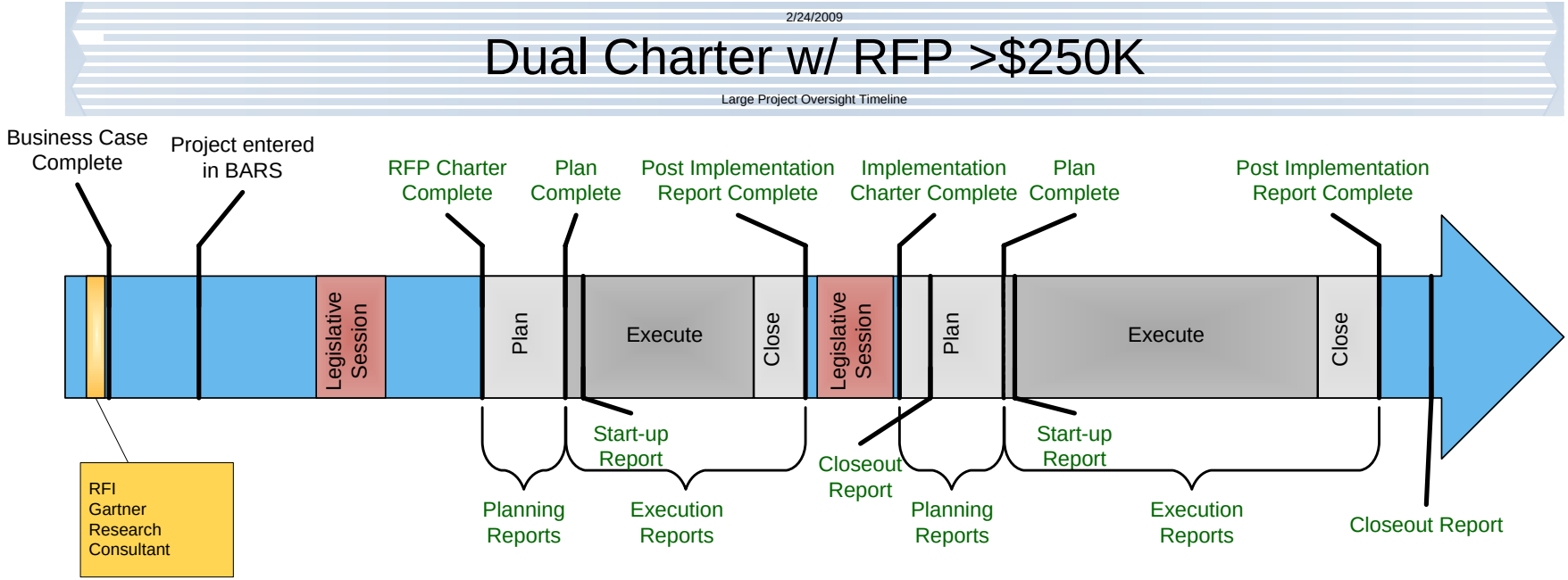


This figure depicts an LPO project that includes an RFP where the cost of the RFP phase is less than $250,000.

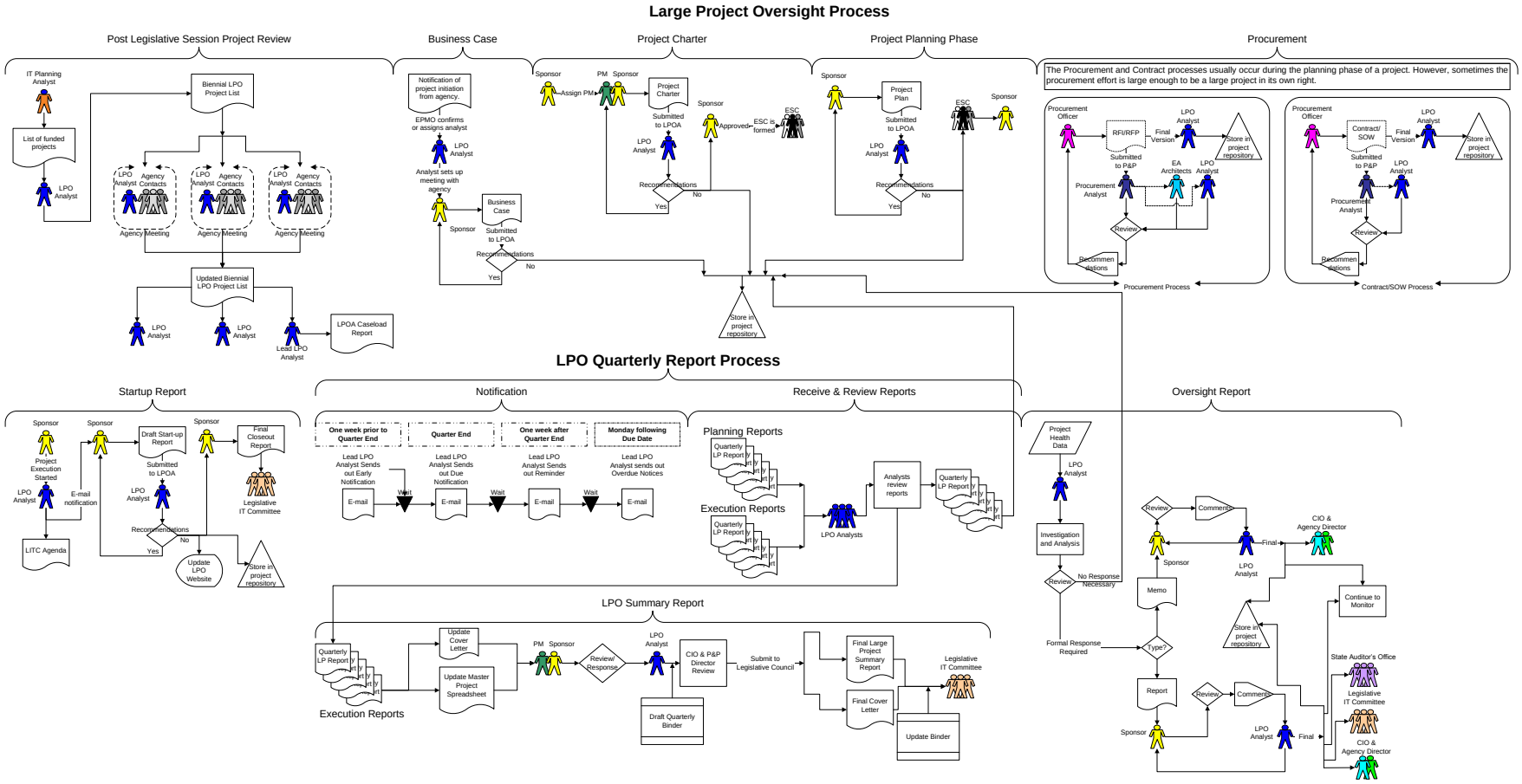


Appendix B: High Level Timeline

This figure depicts an LPO project that includes an RFP where the cost of the RFP phase is more than $250,000.



Appendix C: Overview of LPO Processes



Appendix D: Business Case

This appendix is intended to describe, in detail, the requirements and best practices for each section of the business case.

- **Project Description**
    - This section will feed the project background section of the project charter.
    - Required
        - This section must describe the project in a manner that a typical layman, not involved in the project, could understand the intent of the project.
        - Must be business related not product specific at this time (e.g., "We are going to seek a technology solution to solve the business needs below.")
    - Best Practice – none at this time
- **Business Need/Problem**
    - This section will feed the objectives section of the project charter. An objective or combination of objectives identified in the project charter will resolve one or more of the business needs/problems.
    - Required
        - The business needs or problems must be defined well and have the ability to be tied to the organizational mission, vision and strategic goals of the business (See Consistency/Fit with Organization's Mission).
        - The solution identified must resolve the business needs or problems.
    - Best Practice
        - This section is often best formatted as an introductory paragraph followed by a bulleted list.
- **Solution**
    - This section will feed the project background section of the project charter. The solution selection details are elaborated in the scope section of the project charter.
    - Required
        - The solution shall depict the general concept of how the agency anticipates solving the business needs or problems (e.g., COTS solution, build from scratch, and partner with another entity.)
        - The solution shall be derived objectively vs. subjectively (e.g., the manner in which the agency came to the conclusion must be explained).
    - Best Practice
        - The following are ways to get input to the solution section and should be completed prior to the funding process:
            - A Request for Information (RFI)
            - High level vendor estimates
            - Market research
        - Utilize the ND PM Guidebook Solution Section Process

- **Consistency/ Fit with Organization's Mission**
    - Required
        - This section shall explain which areas of the organizational mission, vision and strategic goals are unable to be fully realized due to the business problems and needs identified.
    - Best Practice – none at this time
- **Cost Benefit Analysis**
    - **Anticipated Benefits**
        - A single benefit may solve multiple problems or needs, and/or multiple benefits may be needed to solve a single problem or need.
        - Required
            - The anticipated benefits are a result of the proposed solution and must solve the business needs or problems identified above.
        - Best Practice – none at this time
    - **Cost Estimate**
        - This is a high-level estimate of what the project could cost based upon market data, RFI, vendor estimate, etc.
        - Required
            - A high-level budget must be included in this section with as much detail as the solution selection process allows to be defined (i.e., solution includes product, implementation, hardware, training, etc.)
        - Best Practice
            - This should include a best estimate of soft costs as well to begin the development of a total cost of project budget.
            - An additional item that should be included is a high-level, on-going cost of operations.
            - The intent is to include the cost necessary to achieve the overall benefits of the project, not simply to install the product.
            - This should be displayed in a table format to clearly identify appropriation costs, reallocated costs, operational costs, and total cost of project:

	Appropriated	Reallocated	Total
Project Costs			
Hardware	$150,000.00		$150,000.00
Software/Licenses	$250,000.00		$250,000.00
Consulting	$100,000.00		$100,000.00
Training	$25,000.00		$25,000.00
Project Management		$25,000.00	$25,000.00
Staff		$75,000.00	$75,000.00
Travel			$-
Miscellaneous			$-
i.e. Rental Space			$-
Risk Contingency	$60,000.00		$60,000.00
Management Reserve	$60,000.00		$60,000.00
Sub-Total	**$645,000.00**	**$100,000.00**	**$745,000.00**
Non-Project Costs (Operations)			
Maintenance Fees	$10,000.00		$10,000.00
Software/Licenses			
Hosting Fees		$10,000.00	$10,000.00
Staff		$30,000.00	$30,000.00
Sub-Total	**$10,000.00**	**$40,000.00**	**$50,000.00**
Total	**$655,000.00**	**$140,000.00**	**$795,000.00**
Bars Request	**$655,000.00**		
Total Cost of Project	**$745,000.00**		
2YR Cost of Ownership	**$795,000.00**		

- **Cost/Benefit Analysis**
  - Required
    - There shall be an argument that states why the benefits to be achieved are worth the estimated cost.
  - Best Practice
    - Sometimes it can be an actual Return on Investment (ROI) calculation, other times it can be things like cost avoidance, compliance with federal/state regulations, technology refresh, and customer service.
- **Project Risks**
  - Required
    - These shall be business related risks (i.e., What is the risk to the business in doing this project and what is the risk to the business of not doing this project?).
  - Best Practice
    - This is best displayed in a table format:

Business Risk	Assessment		Impact
	Probability (L, M, H)	Impact (L, M, H)	
Risks to the business of approving the project:			
Risks to the business of NOT approving the project:			

Appendix E: Project Charter

This appendix is intended to describe, in detail, the requirements and best practices for each section of the project charter.

- **Project Background**
  - Inputs to this section come from the business case. In return, it will feed the project background section of the project plan.
  - The primary inputs to the project background include:
    - Business case Project Description Section
    - Business case Solution Section
    - Description of any business case risk acceptance decisions
    - Applicable historical information
    - Any activities that occurred since the business case
  - Required
    - This section must describe, at a high-level and in a manner that the typical ESC member will be able to understand, the history of the project to date.
  - Best Practice – none at this time
- **Project Scope**
  - Inputs to this section include the business case, RFP responses and solution selection data.
  - Required
    - This section must provide the level of detail that allows the planning team to easily transition into level two (functional area work packages) of the Work Breakdown Structure (WBS).
    - It shall define, at a high level, what will be included and excluded from the project.
  - Best Practice
    - This section is best formatted as follows:
      - In Scope:
        - Scope item #1
        - Scope item #2
      - Out of Scope:
        - Out of scope item #1
        - Out of scope item #2
- **Objectives**
  - This is the primary section of focus for the assigned LPOA because the objectives are a key factor used to measure the success of the project.

- Required
  - This section shall be an elaboration of the business needs/problems from the business case into SMART (i.e., specific, measureable, achievable, relevant, and time-bound) objectives.
  - Objectives shall include things related to and measureable within the first three months of the implementation of the product but may also include things that need to be measured over a time period in the future.
  - The format shall include the related business need or problem followed by the SMART objective(s) that would solve that business need or problem.
- Best Practice
  - The following are examples of how objectives may be defined to be measured:
    - Via surveys
    - Measurements taken before and after implementation, such as efficiencies and reductions of staff time
    - Yes/no (i.e., the objective was either met or not upon completion of the project). The agency should only use this type of measurement when they can trace it back to supporting anticipated benefits.
  - A single business need or problem could be resolved by multiple objectives with measurement(s) or a single objective with measurement(s) could support multiple goals
  - Objectives may be supported by one or more measurement types
- The following are examples of objectives:

Example #1

Business Need/Problem: Mailing costs are too high (Carried from business case Business Need/Problem section)

Objective: Reduce the number of mailings (Carried from business case Anticipated Benefits section) (specific and relevant)

Measurement: Reduction of mailings per month from 1,000 to 750 within a six month period following project completion as measured by the monthly postage meter (measureable, achievable, and time-bound)

Objective: Reduce the number of people involved in the mailing process (Carried from business case Anticipated Benefits section) (specific and relevant)

Measurement: Reduction of staff time by 30% within a six-month period following project completion as measured by taking a baseline of staff time for one month during the project and comparing it to a one-month time survey taken during the seventh post-project month (measureable, achievable, and time-bound).

Example #2

Business Need/Problem: Mailing costs are too high (Carried from business case Business Need/Problem section)

Objective: Reduce the number of mailings per month (Carried from business case Anticipated Benefits section) from 1,000 to 750 within a six-month period following project completion as measured by the monthly postage meter. (specific, measureable, achievable, relevant, and time-bound)

Objective: Reduce the number of people involved in the mailing process (Carried from business case Anticipated Benefits section) by 30% within a six-month period following project completion as measured by taking a baseline of staff time for one month during the project and comparing it to a one month time survey taken during the seventh post-project month. (specific, measureable, achievable, relevant, and time-bound)

- Required Resources
  - Required
    - This section shall focus on what resources the agency expects to use for the planning of the project. It explains to the Project Sponsor what resources the project requires during that time.
    - Minimally, the percentage of the resources for planning, by name, shall be included. Even better would be to include estimated planning length and/or hours used by each resource.
  - Best Practice
    - The following is an example format for the planning resources required:

Resource Planning		
It is anticipated that planning of this project will take one month. The following depicts the resources required for planning. It also includes the total amount of anticipated hours that will be required from the resource for the planning time period.		
Planning Start Date: 1/1/2009	**Planning End Date:** 1/31/2009	
Resource, Role	**% Time Expected**	**Hours Required**
Bob Johnson, Project Sponsor	6%	10
John Smith, Project Manager	100%	160
Betty Fischer, Business Analyst	50%	80
Mary Drummond, System Architect	25%	40

    - Optionally, an estimate for the resources required for the execution of the project plan may also be included. If that estimate is included, it should be clear that there will be opportunity to review that commitment prior to moving into execution.
    - It is dangerous to discuss, at this time, the resources that are going to be involved in the execution of the project because that type of information isn't usually defined until the planning phase. Should a project have a need for an estimate of the resources that might be involved in the execution of the project, the following is an example format:

Resource Estimate Chart					
Resource	**Project Sponsor**	**Executive Committee**	**Project Manager**	**Core Team**	**Time Commitment**
Steve Stine		**X**			**< 1%**
Suzanne Martin		**X**			**< 1%**
Bob Johnson	**X**	**X**			**3 – 5%**
John Smith		**X**	**X**		**80%**
Betty Fischer				**X**	**25 – 30%**
Mary Drummond				**X**	**< 3%**

- Constraints
  - The PMBOK definition for constraints is "The state, quality or sense of being restricted to a given course of action or inaction. An applicable restriction or limitation, either internal or external, to the project that will affect the performance of the project or a process. You will build & validate these during planning and execution."
  - Required
    - Minimally, the agency must address constraints related to Cost, Scope, Schedule, and Quality (CSSQ).
  - Best Practice
    - A constraint can be attached to a risk or assumption.
    - The EPMO recommends including a constraint that lists the priority order for schedule, cost, scope, and quality as it relates to analyzing integrated changes.
- **Assumptions**
  - The PMBOK definition for assumptions is "Assumptions are factors that, for planning purposes, are considered to be true, real, or certain without proof or demonstration. You will build & validate these during planning and execution." An assumption generally involves a degree of risk.
  - Required
    - Minimally, the agency must address assumptions related to CSSQ
  - Best Practice
    - Look for assumptions that counter constraints.
- **Project Authority**
  - This section of the project charter describes the levels of project authority throughout the planning process.
  - *Required*
    - This section shall identify:
      - Who is involved with the project and their expected authority

- Who has the ability to resolve conflicts
- Any known governing body or steering committee to which the project is accountable and how they are accountable

- Best Practice
  - This section should identify the roles and responsibilities of the project team and the stakeholders.

- Optional Sections (The EPMO considers all sections to be best practice)
  - **Preliminary Budget**
    - The agency could copy and paste this section from the business case; including hard costs, soft costs and total cost of ownership. Update with any new information.
  - **Preliminary Schedule**
    - This section should identify the proposed length of the planning process. It may include a high-level future execution timeline. If a planning schedule is not included, the LPOA will want to ask for the timeline expected.
  - **Description of Project Risks**
    - This section should include high-level risks like "Staff will have additional duties during the upcoming legislative session".
  - **Organizational Chart**
  - **Communications Plan**
    - This section should include the level of communication required to plan effectively. It should set expectations for all parties involved in planning.

- **Approval**
  - Required
    - If the sponsor is also able to authorize all the resources required for planning, then only the first signature line is needed.
    - If one or more people are needed to authorize resources for planning, then they shall utilize the second signature line and copy as needed.
  - Best Practice – none at this time

Appendix F: Project Plan

According to STD 009-05 all sections of the ND Project Management Guidebook project plan template must be included in the project plan submitted. This appendix is intended to describe, in detail, the minimum required content for each section as well as some best practices.

- **Executive Summary** (No minimum requirements)
- **Introduction** (No minimum requirements for any of the sub-sections)
  - **Background**
    - This section may be carried forward from the project charter's project background sub-section.
  - **Project Purpose**
  - **Project Assumptions and Constraints**
    - This section may be carried forward from the project charter and elaborated on as new assumptions and constraints are identified during the planning process. Assumptions should be logical and specific. Constraints should be truly constraints and not just targets. The iron triangle constraint should be included in this section.
  - **Project Approach**
    - **List of related documents**
      - This section should identify the document repository and individually the business case, project charter, and any other documents specifically referenced in the project plan. It is good practice to add a link to all referenced documents.
- **Scope Management**
  - **Project Scope Statement**
    - The scope information contained in the project charter should be carried forward but can be changed and/or elaborated in the project plan. This section must provide the level of detail that allows the planning team to easily transition into level two (functional area work packages) of the WBS. Scope can evolve throughout planning. This section will reflect the final adjusted scope that is Project Sponsor approved and aligned with the plan.
    - Required
      - If the scope has evolved, it must continue to align with the original business strategic goals and objectives.
    - Best Practice – none at this time
- **Product Description** (No minimum requirements)
- **Scope Control**
  - Required
    - This section must define how the project will control scope unless all control is managed via the use of the integrated change control process.

- Authority and escalation levels must be referenced here or in the integrated change control section. If not using integrated change control, this section must describe, in detail, how the project will control scope, with what levels of authority and escalation, and in relation to impacts on other elements of CSSQ.

- Best Practice
  - If this section is included in the project plan and the project will use integrated change control to control scope, then there should be a reference stating that in this section.

- **Acceptance Management** (Deliverable Acceptance Process)
  - Required
    - The acceptance of a deliverable must be documented and signed.
    - Deliverables must be date driven and aligned with the project schedule.
    - There must be an escalation process identified for when the deliverer and the accepter cannot come to terms on acceptance.
  - Best Practice
    - A deliverable review period should be planned into the schedule.
    - The section could also include pre-determined acceptance criteria based on a deliverable dictionary or other quality criteria.

- **Deliverable Acceptance Log**
  - Required
    - There must be a mechanism to track deliverables defined.
  - Best Practice
    - The log can include Planned Due Date, Review Date, and Accepted/Rejected Date.
    - If an automated system includes the ability to analyze planned due date, submission date, acceptance date, and action taken, a separate deliverable acceptance log is not required.

- **Time Management**
  - **Work Breakdown Structure (WBS)**
    - Required
      - Either in this section or referenced elsewhere in the project plan, a WBS must be included and decomposed. It does not have to include elements which have effort attached.
    - Best Practice
      - The WBS should be graphically depicted.
  - **Schedule**
    - Required
      - A high-level schedule table including milestones must be a part of this section. The inclusion of milestones is critical to compliance with NDCC

54-59-23 which measures both cost and schedule variance in relation to project milestones.

- Phases and deliverables must be integrated into the table.
- Both planned start and planned finish dates must be included also.
- A reference to the detailed schedule must be included.

- Best Practice
  - A statement as to whether the table will be considered a static baseline and changes will be managed in a toolset, or whether the table will be dynamic and reflect changes to the project plan would be nice to include also.
  - The following is an example format:

Phase/ Deliverable/*Milestone*	Start Date	End Date
Phase X	9/15/2008	12/19/2008
Deliverable A	1/5/2009	2/17/2009
Milestone 1(only include end date milestones)	N/A	3/01/2009

  - Work packages and/or activities should be decomposed into no less than 4 and no more than 80 hours of effort.
  - Task dependencies should be defined.
  - A critical path should be identified in the detailed schedule.

- **Schedule Control**
  - Required
    - This section must define how the project will control the schedule unless all control is managed via the use of the integrated change control process.
    - Authority and escalation levels must be referenced here or in the integrated change control section. If not using integrated change control, this section must describe, in detail, how the project will control the schedule, with what levels of authority and escalation, and in relation to impacts on other elements of CSSQ.
    - The Budget/Schedule Variance Spreadsheet must be used to manage/report variances to schedule.
  - Best Practice
    - If this section is included in the project plan and the project uses integrated change control to control schedule, then there should be reference stating that in this section.
- **Implementation and Transition Plan**
  - The implementation and transition plan discusses how to transition the project from the project team to the organization. (e.g., post-implementation activities,

organizational change, end-user support, and any plans for ongoing training, etc.).

- Required
  - This section must include a description of the high-level elements required to successfully transition the project.
- Best Practice
  - It is also appropriate to include the development activities in the project activities (e.g. specific training plan, development of service level agreements, etc.).

- **Cost Management**
  - **Budget**
    - Required
      - There must be a high-level budget included in this section.
      - At a minimum, the budget table must contain the following information noted in the following table. More detailed information is acceptable.
    - Best Practice
      - There may be a reference to a more detailed budget.
      - The detailed budget could be an appendix or a separate document in the project repository.
      - As necessary, additional categories of project cost may be added or removed.
      - Risk contingency encompasses the total project effort. External software development groups often embed project risk into the development effort. However, projects must also include risks to other aspects of the project.

	Appropriated	Reallocated	Total
Project Costs			
Hardware	$-	$-	$-
Software/Licenses	$-	$-	$-
Consulting	$-	$-	$-
Training	$-	$-	$-
Project Management	$-	$-	$-
Staff	$-	$-	$-
Travel	$-	$-	$-
Miscellaneous	$-	$-	$-
i.e. Rental Space	$-	$-	$-
Actual Sub-Total	**$-**	**$-**	**$-**
Risk Contingency	$-	$-	$-
Baseline Sub-Total	**$-**	**$-**	**$-**
Management Reserve	$-	$-	$-
Budget Sub-Total	**$-**	**$-**	**$-**

- **Cost Control**
  - Required
    - This section must define how the project will control cost unless all control is managed via the use of the integrated change control process.
    - Authority and escalation levels must be referenced here or in the integrated change control section. If not using integrated change control, this section must describe, in detail, how the project will control cost, with what levels of authority and escalation, and in relation to impacts on other elements of CSSQ.
    - The agency must use the Budget/Schedule Variance Spreadsheet to manage/report variances to budget.
  - Best Practice
    - If this section is included in the project plan and the project uses integrated change control to control schedule, then there should be reference stating that in this section.

- **Quality Management** (The entire management plan is considered Best Practice)
  - The EPMO recommends the following format, based on the PMBOK processes:
    - Quality Planning (Standards)
      - This section should identify all of the quality standards the project plans to use.
      - Examples:
        - ND Project Management Guidebook is the project management standard to which the project will adhere
        - ITD's EGT software development standards will be used for development
    - Quality Assurance (Processes)
      - This section should state that the project will use the Integrated Change Control procedure if a quality change is required.
      - Examples:
        - Stakeholders will review documents for content agreement
        - Schedule and cost variance will be calculated at major milestones
        - Large Project Oversight requirements will be applied to the project management of the project
        - All code developed will be subjected to a code walkthrough
    - Quality Control (Measurement of Process)
      - Examples:
        - Schedule and cost variance will not exceed 20%
        - Unit and system testing will produce zero critical issues and less than 20 major issues

- **Integrated Change Control**
  - Integrated change control is concerned with influencing the factors that create changes to ensure that changes are agreed upon, determining that a change has occurred, and managing the actual changes when and as they occur.
  - Required
    - This section must describe in detail how CSSQ will be controlled, the impacts of each element on the project and each other, what levels of authority, and the escalation process. Some control elements may be described in the other CSSQ control sections.
    - The project must use a table or spreadsheet to track scope changes if a reasonable toolset is not used.
  - Best Practice
    - The ND Project Management Guidebook project plan template contains a good example.
- **Human Resources/Staffing Management**
  - **Team Directory** (considered Best Practice)
  - **Responsibility**
    - Required
      - This section must identify the specific responsibilities assigned to each role.
      - The LPOA should be noted where appropriate (e.g., the ESC).
    - Best Practice
      - A Resource Assignment Matrix could replace the role/responsibility table as long as it provides the same level of information.
  - **Organizational Chart** (considered Best Practice)
  - **Team Development Plans** (considered Best Practice)
    - The project manager should consider what training the team members need in order to complete the project.
  - **Staffing Management Plan**
    - Required
      - This plan must show when and how the project will bring people on and off of the project.
      - It must also address how the project will address team performance issues.
    - Best Practice
      - Excerpts from vendor contracts related to the management of vendor staff could be included in this area.

- **Communications Management**
  - Project communications management includes the processes required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimately disposition of project information.
  - Required
    - The communications management plan must provide comprehensive methods of communication which take into account the communication needs of all project stakeholders.
    - The plan must include the quarterly reporting process and ESC meetings.
  - Best Practice
    - The plan should define the expectations (e.g., type, purpose, audience, frequency, author, timing of release, timing of review, and the retention expectations).
- **Risk Management and Issue Management**
  - **Risk Management Plan**
    - Required
      - Minimally, the plan must identify high-level risks including risk description, probability rating, impact rating, agreed response, and response plan.
      - The project must use a table or spreadsheet to track risks if a reasonable toolset is not used.
      - The plan must also include a risk escalation and management process.
    - Best Practice
      - The use of a Risk Score would be appropriate.
      - The project should conduct a risk identification session, including a diverse group of stakeholders, as part of the planning process.
      - A risk contingency budget amount should be determined as an output of the risk identification session and included in the budget table.
  - **Issue Management Plan**
    - Issues differ from risks because an issue already exists; risks are only a potential event. If a risk occurs, it can become an issue, and conversely, a new issue can generate new risks.
    - Required
      - The project must use a table or spreadsheet to track issues if a reasonable toolset is not used.
      - An issue escalation and management process must also be included.
    - Best Practice
      - A process (e.g., form) should be available to all stakeholders to raise issues.

- **Procurement Management**
  - **Procurement Management Plan**
    - Project procurement management includes the processes required to acquire goods and services, to attain project scope, from outside the performing organization.
    - Required
      - If the project is developing a plan for the procurement phase of an overall project, then it must identify the processes, rules, laws, etc., the project plans to utilize for acquiring goods and services necessary to complete the project. It must also identify the procurement officer responsible for the effort.
      - If the project is developing a plan for the implementation phase of an overall project, then it must define the process for managing the vendor relationship, if a vendor is utilized.
      - The plan must also include who is responsible for managing the contract, if a contract exists.
    - Best Practice
      - The specific type of contract utilized (e.g., vendor pool, state term contract, independent contract for goods or services) should also be identified.

Appendix G: Post Implementation Review

The following provides a breakdown of the sections of the PIR as defined in the ND Project Management Guidebook PIR template. Each section contains LPOA recommendations for review of that particular section:

- **Product Effectiveness** (Section is considered Best Practice)
  - This section should contain a general review of how the product is performing during post implementation. Success stories may be outputs of this portion of the review.
- **CSSQ Management** (Section is considered Best Practice)
  - This section should relate to either the individual management plans and/or integrated change control process.
- **Risk Management** (Section is considered Best Practice)
  - This section calls out the top-level risks that occurred in the project and whether the process successfully controlled them.
- **Communications Management** (Section is considered Best Practice)
- **Acceptance Management** (Section is considered Best Practice)
- **Organizational Change Management** (Section is considered Best Practice)
  - This section would only be utilized if a specific organizational change management plan was developed for a project. Organizational change management is not a default management plan in the ND Project Management Guidebook template.
- **Issues Management** (Section is considered Best Practice)
  - This section calls out the top-level issues that occurred in the project and whether the process successfully controlled them.
- **Project Implementation and Transition** (Section is considered Best Practice)
- **Performance of Performing Organization** (Section is considered Best Practice)
  - This section is not written specifically to address the management plans used within the project plan. Rather, it contains subjective summary information related to survey results or other input.
- **Performance of Project Team** (Section is considered Best Practice)
  - This section is not written specifically to address the management plans used within the project plan. Rather, it contains subjective summary information related to survey results or other input.
- **Key Project Metrics**

  The EPMO would like to see consideration given to moving the project metrics section to earlier in the template and insert a business metrics section here to capture the objectives and measurements data reporting in the project charter and startup report.
  - **Business Metrics**
    - Required
      - This section must utilize the table format in the closeout report and the project manager must enter the resulting data from the various measurements techniques.

Project Objectives	Measurements	
	Met/ Not Met	Description

- Best Practice – none at this time

- **Cost**
  - Required
    - This section must be formatted as shown in the table below. The instructions for completing it are given after the table. The Closeout Report Data section is included later for reference.

Final Cost	***Final Approved Baseline Cost Estimate***	***Difference from Final Cost***	***Original Cost Estimate***	***Difference from Final Cost***
$Actual Expenditures	*$Baseline Budget*	*$*	*$*	*$*
		Variance%		*%*
Number of approved changes made to the original budget.				
Number of "re-baselined" budget estimates performed.				

PIR Data Instructions:

1. Final Cost - should match the "Expenditures to Date" reported on the final project quarterly report.
2. Final Approved Baseline Cost Estimate - should match the "Revised Budget" reported on the final project quarterly report.
3. Difference from Final Cost (1) – Is equal to Final Approved Baseline Cost Estimate minus Final Cost.
4. Variance based on Final Approved Baseline Cost Estimate – Is equal to Final Cost divided by Final Approved Baseline Cost Estimate.
5. Original Cost Estimate – Should match the "Budget" (original budget) section of the quarterly report.
6. Difference from Final Cost (2) – Is equal to Original Cost Estimate minus Final Cost
7. Variance based on Original Cost Estimate - Is equal to Final Cost divided by Original Cost Estimate
8. Number of approved changes made to the original budget – Reflect formal scope increases/decreases as identified in the change control log.
9. Number of "re-baselined" budget estimates performed – Reflect costs associated with formal
10. Scope increases/decreases and should balance the Budget and Revised Budget sections of the quarterly report. The LPOA can verify the data against the change control log.

The Closeout Report Data section (for reference):

Budget Objectives			
Met/ Not Met	Baseline Budget	Actual Expenditures	Variance
Met if within the 20% variance threshold	Final Approved Baseline Cost Estimate	Final Cost	Variance (based on Final Approved Baseline Cost Estimate)

- *Best Practice – none at this time*

- **Schedule**
  - Required
    - The author must include the following in narrative in this section in order to carry the appropriate information forward to the Closeout Report.
      - Project start date
        - Planned end date
        - Actual end date
        - Total months from actual start date to planned end date
        - Total months from actual start date to actual end date
        - Schedule variance calculated by dividing actual months by planned months
  - Best Practice
    - This section may be formatted as shown in the table below. The instructions for completing it are given after the table. The Closeout Report Data section is included later for reference.

Number of milestones in baseline schedule.	
Number of baseline milestones delivered on time (according to last baselined schedule).	
Difference in elapsed time of original schedule and final actual schedule.	
Difference in elapsed time of final baseline and final actual schedule.	

PIR Data Instructions:

1. Number of milestones in baseline schedule – Should align with the milestones identified in the Phase/Deliverables/Milestones table of the project plan.
2. Number of baseline milestones delivered on time (according to last baselined schedule) – This is invalid as milestones are defined as specific moments in time and will always occur on time.
3. Difference in elapsed time of original schedule and final actual schedule – Should be calculated in months.
4. Difference in elapsed time of final baseline and final actual schedule - Should be calculated in months. This includes increases/decreases to scope.

The Closeout Report Data section (Proposed):

Schedule Objectives				
Met/ Not Met	Original Planned Schedule in Months	Final Baseline Planned Schedule in Months	Actual Schedule in Months	Variance
				%

- **Scope**
  - Required
    - The narrative in this section must describe any major scope changes, pertinent details, justifications, etc that occurred during the project. This will be transferred to the project closeout report.
  - Best Practice
    - This section may be formatted as shown in the table below. The instructions for completing it are given after the table. The Closeout Report Data section is included later for reference.

Number of baseline deliverables.	
Number of deliverables delivered at project completion.	
Number of scope changes in the post-planning phases.	

PIR Data Instructions:

1. Number of deliverables delivered at project completion is not necessarily impacted by the number of scope changes
2. To provide value, narrative describing the impact of each scope change on project deliverables would be required.

The Closeout Report Data section (Proposed):

Major Scope Changes
Originates from the narrative above.

- **Quality** (Section is considered Best Practice)
  - The following illustrates the format the ND Guidebook currently offers

Number of defects/quality issues identified after delivery.	
Number of success measures identified in the Business Case that were satisfied or achieved at project completion.	

- **Lessons Learned**
  - The agency should transfer key lessons learned described here to the project closeout report.
  - Required
    - This section does not formally exist in the ND Project Management Guidebook template, but the agency must create it to capture lessons learned if they are not captured within individual sections of the report.
  - Best Practice
    - The project may collect lessons learned as they occur during the project, reported as survey results, or as a result of other closeout activities.
- **Success Stories**
  - The agency should transfer key success stories described below to the project closeout report.
  - Required
    - This section shall include success stories related to how the project resolved the business problems/needs.

- This section does not formally exist in the ND Project Management Guidebook template, but the agency must create it to capture success stories if they are not captured within individual sections of the report.

- Best Practice
  - The project may collect success stories as they occur during the project, reported as survey results, or as a result of other closeout activities.

Appendix H: Acronyms used in this guidance document

CIO – Chief Information Officer

EPM – Enterprise Project Management

EPMO – Enterprise Project Management Office

ESC – Executive Steering Committee

IT – Information Technology

ITD – Information Technology Department

LITC – Legislative Information Technology Committee

LPO – Large Project Oversight

LPOA – Large Project Oversight Analyst

NDCC – North Dakota Century Code

PIR – Post Implementation Review

PM – Project Manager

RFI – Request for Information

RFP – Request for Proposals

SITAC – Statewide Information Technology Advisory Committee

STD – Standard